

WHAT IS CLAIMED IS:

1. A trailer assembly comprising a bed subassembly comprising a plurality of sections movably coupled to one another for permitting movement between an extended configuration and a folded configuration, wherein in the folded configuration the plurality of sections collectively form a bottom surface, an upper surface, and surrounding side walls of an enclosable compartment, and wherein at least one of the sections comprises a closable access member movable between an open position and a closed position for selectively permitting access to and sealing of the compartment, respectively, while the sections are maintained in the folded configuration.

2. A trailer assembly according to claim 1, further comprising a wheel subassembly carrying the bed subassembly.

3. A trailer assembly according to claim 2, further comprising a drawbar coupled to at least one of the bed subassembly and wheel subassembly for permitting towing of the trailer assembly behind a vehicle when the bed subassembly is in both the extended and folded configurations.

4. A trailer assembly according to claim 3., wherein the bed subassembly, the wheel subassembly, and the drawbar are freely rotatable relative to one another.

5. A trailer assembly comprising:
a bed subassembly comprising a forward section comprising a forward section inner surface and a forward gate substantially transverse to the

forward section inner surface, an aft section comprising an aft section inner surface and an aft gate substantially transverse to the aft section inner surface, and an intermediate section comprising an intermediate section inner surface, the forward and aft sections being movably connected to the intermediate section between an extended configuration, in which the intermediate section inner surface is interposed between and substantially parallel with the forward section inner surface and the aft section inner surface, and a folded configuration, in which the forward and aft section inner surfaces are in substantially transverse relationship to the intermediate section inner surface and in which the forward, intermediate, and aft sections collectively form an enclosed compartment, wherein a member selected from the group consisting of the forward section, the aft section, and the intermediate section comprises a closable access member movable between an open position and a closed position for selectively permitting access to and sealing of the enclosed compartment, respectively, as the sections are maintained in the folded configuration; and

a wheel subassembly supporting the bed subassembly for moving the bed subassembly along the ground.

6. A trailer assembly according to claim 5, wherein the forward and aft gates are pivotal, when the trailer assembly is in the folded configuration, between the open position, in which the forward and aft gates face one another and are substantially parallel to the forward section inner

surface and the aft section inner surface, respectively, and the closed position, in which the forward and aft gates are spaced apart from and face the intermediate section inner surface.

7. A trailer assembly according to claim 6, further comprising gate latching mechanisms for locking the forward and aft gates in the open position and preventing pivotal movement of the forward and aft gates into the closed position.

8. A trailer assembly according to claim 5, wherein:
the forward section comprises a pair of forward side panels positionable on opposite sides of and in substantially transverse relationship to the forward section inner surface;

the aft section comprises a pair of aft side panels positionable on opposite sides of and in substantially transverse relationship to the aft section inner surface; and

the forward and aft side panels define opposing sides of the enclosed compartment when the trailer assembly is in the folded configuration.

9. A trailer assembly according to claim 8, wherein at least one of the forward side panels and the aft side panels is pivotal relative to the forward section inner surface and the aft section inner surface, respectively, and constitutes the closable access member.

10. A trailer assembly according to claim 5, wherein the intermediate section comprises a pair of intermediate side panels on opposite

sides and in substantially transverse relationship to the intermediate section inner surface.

11. A trailer assembly according to claim 5, further comprising a drawbar extensible substantially parallel to the intermediate section inner surface when the trailer assembly is in the extended and folded configuration for permitting towing of the trailer assembly.

12. A trailer assembly according to claim 5, wherein the intermediate section further comprises an intermediate section outer surface and a plurality of apertures extending from the intermediate section inner surface to the intermediate section outer surface.

13. A trailer assembly according to claim 5, wherein:
the forward section further comprises a forward section outer surface and a plurality of forward apertures extending from the forward section inner surface to the forward section outer surface; and

the aft section further comprises an aft section outer surface and a plurality of aft apertures extending from the aft section inner surface to the aft section outer surface.

14. A trailer assembly according to claim 13, wherein the intermediate section further comprises an intermediate section outer surface and a plurality of apertures extending from the intermediate section inner surface to the intermediate section outer surface.

15. A trailer assembly according to claim 14, further comprising at least one stabilizing member extending between a first aperture of the plurality of forward apertures and a second aperture of the plurality of aft apertures.

16. A trailer assembly according to claim 6, further comprising a cover extending between the forward and aft gates when in the open position.

17. A trailer assembly comprising:
a bed subassembly comprising a forward section comprising a forward section inner surface and a forward gate substantially transverse to the forward section inner surface, an aft section comprising an aft section inner surface and an aft gate substantially transverse to the aft section inner surface, and an intermediate section comprising an intermediate section inner surface, the forward and aft sections being movably connected to the intermediate section between an extended configuration, in which the intermediate section inner surface is interposed between and substantially parallel to the forward section inner surface and the aft section inner surface, and a folded configuration, in which the forward and aft section inner surfaces are in substantially transverse relationship to the intermediate section inner surface and in which the forward, intermediate, and aft sections collectively form an enclosed compartment; and

a wheel subassembly rotatably supporting the bed subassembly for moving the bed subassembly along the ground when in the extended and

folded configurations, the wheel subassembly comprising first and second wheels for making contact with and moving across the ground, and a wheel-mount carriage on which the bed subassembly is rotationally mounted for rotating the bed subassembly at least 90 degrees relative to the wheel subassembly.

18. A trailer assembly according to claim 17, further comprising:
a drawbar mount rotatably connected to the wheel-mount carriage to permit rotational movement of the drawbar mount relative to and independently of the wheel subassembly and the bed subassembly; and
a drawbar connected to the drawbar mount for permitting pulling of the bed subassembly via the drawbar when in the extended and folded configurations.

19. A trailer assembly according to claim 17, wherein the intermediate section further comprises an intermediate section outer surface and a plurality of apertures extending from the intermediate section inner surface to the intermediate section outer surface.

20. A trailer assembly according to claim 17, wherein:
the forward section further comprises a forward section outer surface and a plurality of forward apertures extending from the forward section inner surface to the forward section outer surface; and

the aft section further comprises an aft section outer surface and a plurality of aft apertures extending from the aft section inner surface to the aft section outer surface.

21. A trailer assembly according to claim 20, wherein the intermediate section further comprises an intermediate section outer surface and a plurality of apertures extending from the intermediate section inner surface to the intermediate section outer surface.

22. A trailer assembly according to claim 21, further comprising at least one stabilizing member extending between a first aperture of the plurality of forward apertures and a second aperture of the plurality of aft apertures.

23. A trailer assembly according to claim 19, further comprising a cover extending between the forward and aft gates when in the open position.

24. A trailer assembly comprising a bed subassembly movable between an extended configuration and a folded configuration, the bed subassembly comprising an intermediate section that serves as a first bottom portion in the extended and folded configurations, and forward and aft sections movably coupled to opposite ends of the intermediate section for serving as second and third bottom portions in the extended position and side walls of a compartment in the folded configuration, wherein the forward and aft sections are in substantially non-overlapping relationship with one another in the folded configuration.

25. A trailer assembly according to claim 24, further comprising a wheel subassembly carrying the bed subassembly.

26. A trailer assembly according to claim 25, further comprising a drawbar coupled to at least one of the bed subassembly and wheel subassembly for permitting towing of the trailer assembly behind a vehicle.

27. A trailer assembly according to claim 26, wherein the bed subassembly, the wheel subassembly, and the drawbar are freely rotatable relative to one another.

28. A trailer assembly movable between an extended configuration and a folded configuration, the trailer assembly comprising a bed subassembly comprising:

(a) an intermediate section comprising an intermediate platform structure having an intermediate platform inner surface, front and rear end portions opposite to one another, and opposite sides;

(b) a forward section comprising a forward platform inner surface and a forward end gate positionable in a closed position substantially transversely to the forward platform inner surface, the forward section being movably connected to the front end portion of the intermediate section to permit movement between the extended configuration, in which the forward platform inner surface is substantially parallel to the intermediate platform inner surface, and the folded configuration, in which the forward platform inner surface is above and substantially transverse to the intermediate

platform inner surface and in which the forward end gate in the closed position is spaced apart from and faces the intermediate platform inner surface; and

(c) an aft section comprising an aft platform inner surface and an aft end gate positionable in a closed position substantially transversely to the aft platform inner surface, the aft section being movably connected to the rear end portion of the intermediate section to permit movement between the extended configuration, in which the aft platform inner surface is substantially parallel to the intermediate platform inner surface, and the folded configuration, in which the aft platform inner surface is above and substantially transverse to the intermediate platform inner surface and in which the aft end gate in the closed position is spaced apart from and faces the intermediate platform inner surface and is arranged in substantially non-overlapping relationship with the forward end gate.

29. A trailer assembly according to claim 28, wherein the intermediate section further comprises first and second intermediate side panels situated on the opposite sides of the intermediate platform structure and positionable substantially transversely to the intermediate platform inner surface to face one another.

30. A trailer assembly according to claim 29, wherein the first intermediate side panel is pivotally connected to the intermediate platform structure.

31. A trailer assembly according to claim 28, wherein the aft section further comprises first and second aft side panels situated on opposite sides of the aft platform structure and positionable substantially transversely to the aft platform inner surface to face one another, and wherein the aft end gate extends between the first and second aft side panels.

32. A trailer assembly according to claim 31, wherein the forward section further comprises first and second forward side panels situated on opposite sides of the forward platform structure and positionable substantially transversely to the forward platform inner surface to face one another, and wherein the forward end gate extends between the first and second forward side panels.

33. A trailer assembly according to claim 28, wherein the forward and aft end gates respectively comprise forward and aft distal edges remote from the forward and aft platform inner surfaces, respectively, and further wherein the forward and aft distal edges abut one another to establish a roof structure for the trailer assembly when the forward and aft sections are in the folded configuration.

34. A trailer assembly according to claim 28, wherein the aft platform comprises an aft end, and wherein the aft end gate is pivotal relative to the aft end of the aft platform into substantially parallel relationship with the aft platform inner surface when the trailer assembly is in the extended and folded configurations.

35. A trailer assembly according to claim 34, wherein the forward platform structure comprises a forward end, and wherein the forward gate is pivotal relative to the forward end of the forward platform structure into substantially parallel relationship with the forward platform inner surface when the trailer assembly is in the extended and folded configurations.

36. A trailer assembly according to claim 28, wherein the intermediate platform inner surface has a first length extending from the front end portion to the rear end portion, wherein the forward gate has a second length extending from a proximal edge of the forward gate adjacent the forward platform inner surface to a distal edge of the forward gate remote from the forward platform inner surface, wherein the aft gate has a third length extending from a proximal edge of the aft gate adjacent the aft platform inner surface to a distal edge of the aft gate remote from the aft platform inner surface, and wherein the first length is approximately equal to the sum of the second length and the third length.

37. A trailer assembly according to claim 28, further comprising a wheel subassembly comprising first and second wheels for making contact with and moving across the ground, the wheel subassembly being freely and independently rotatable relative to the bed subassembly.

38. A trailer assembly according to claim 37, further comprising a drawbar freely and independently rotatable relative to the bed and wheel subassemblies.

39. A trailer assembly according to claim 28, wherein the intermediate platform structure further comprises an intermediate platform outer surface and a plurality of apertures extending from the intermediate platform inner surface to the intermediate platform outer surface.

40. A trailer assembly movable between an extended configuration and a folded configuration, the trailer assembly comprising a bed subassembly comprising:

- (a) an intermediate section comprising
 - (i) an intermediate platform structure comprising an intermediate platform inner surface, front and rear end portions opposite to one another, and opposite sides; and
 - (ii) optionally first and second intermediate side panels situated on the opposite sides of the intermediate platform structure and positionable substantially transversely to the intermediate platform inner surface to face one another, the first intermediate side panel being rotatable away from the second intermediate side panel;
- (b) a forward section comprising
 - (i) a forward platform structure comprising a forward platform inner surface, the forward section being rotatably connected to the front end portion of the intermediate section to permit rotational movement between the extended configuration, in which the forward platform inner surface is substantially parallel to the intermediate platform inner surface,

and the folded configuration, in which the forward platform inner surface is above and substantially transverse to the intermediate platform inner surface; and

(ii) optionally first and second forward side panels situated on opposite sides of the forward platform structure and positionable substantially parallel to the first and second intermediate side panels, respectively, and substantially transversely to the forward platform inner surface to face one another, the first forward side panel being rotatable away from the second forward side panel; and

(c) an aft section comprising

(i) an aft platform structure comprising an aft platform inner surface, the aft section being rotatably connected to the rear end portion of the intermediate section to permit rotational movement between the extended configuration, in which the aft platform inner surface is substantially parallel to the intermediate platform inner surface, and the folded configuration, in which the aft platform inner surface is above and substantially transverse to the intermediate platform inner surface; and

(ii) optionally first and second aft side panels situated on opposite sides of the aft platform structure and positionable substantially parallel to the first and second intermediate side panels, respectively, and substantially transversely to the aft platform inner surface to face one

another, the first aft side panel being rotatable away from the second aft side panel,

wherein the trailer assembly includes at least one of the optional members selected from the group consisting of (a)(ii), (b)(ii), and (c)(ii).

41. A trailer assembly according to claim 40, wherein the trailer assembly includes optional member (a)(ii) rotatable into substantially coplanar relationship with the intermediate platform inner surface.

42. A trailer assembly according to claim 40, wherein the trailer assembly includes each of optional members (a)(ii), (b)(ii), and (c)(ii).

43. A trailer assembly according to claim 40, wherein the aft section further comprises (c)(iii) an aft end gate extending between the first and second aft side panels and positionable substantially transversely to the aft platform inner surface, the aft end gate facing and being spaced apart from the intermediate platform inner surface when in the folded configuration.

44. A trailer assembly according to claim 43, wherein the forward section further comprises (b)(iii) a forward end gate extending between the first and second forward side panels and positionable substantially transversely to the forward platform inner surface, the forward end gate facing and being spaced apart from the intermediate platform inner surface when in the folded configuration.

45. A trailer assembly according to claim 44, wherein the forward and aft end gates respectively comprise forward and aft distal edges remote

from the forward and aft platform inner surfaces, respectively, and further wherein the forward and aft distal edges abut one another to establish a roof structure for the trailer assembly when the forward and aft sections are in the folded configuration.

46. A trailer assembly according to claim 40, further comprising a wheel subassembly comprising first and second wheels for making contact with and moving across the ground, the wheel subassembly being freely and independently rotatable relative to the bed subassembly.

47. A trailer assembly according to claim 46, further comprising a drawbar freely and independently rotatable relative to the bed and wheel subassemblies.

48. A trailer assembly movable between an extended configuration and a folded configuration, the trailer assembly comprising a bed subassembly comprising:

(a) an intermediate section comprising an intermediate platform structure having an intermediate platform inner surface, front and rear end portions opposite to one another, and opposite sides;

(b) a forward section comprising a forward platform inner surface and a forward end gate positionable substantially transversely to the forward platform inner surface, the forward section being rotatably connected to the front end portion of the intermediate section to permit rotational movement between the extended configuration, in which the forward platform inner

surface is substantially parallel to the intermediate platform inner surface, and the folded configuration, in which the forward platform inner surface is above and substantially transverse to the intermediate platform inner surface; and

(c) an aft section comprising an aft platform inner surface and an aft end gate, the aft section being rotatably connected to the rear end portion of the intermediate section to permit rotational movement between the extended configuration, in which the aft platform inner surface is substantially parallel to the intermediate platform inner surface, and the folded configuration, in which the aft platform inner surface is above and substantially transverse to the intermediate platform inner surface, the aft end gate being pivotal relative to the aft end of the aft platform structure for raising the aft end gate to extend substantially transverse to the aft platform inner surface and to lower the aft end gate to lie in substantially parallel relationship with the aft platform inner surface when the trailer assembly is in both the extended and folded configurations.

49. A trailer assembly according to claim 48, wherein the intermediate section further comprises first and second intermediate side panels situated on the opposite sides of the intermediate platform structure and positionable substantially transversely to the intermediate platform inner surface to face one another.

50. A trailer assembly according to claim 49, wherein the first intermediate side panel is pivotally connected to the intermediate platform structure.

51. A trailer assembly according to claim 49, wherein the aft section further comprises first and second aft side panels situated on opposite sides of the aft platform structure and positionable substantially transversely to the aft platform inner surface to face one another, and wherein the aft end gate extends between the first and second aft side panels.

52. A trailer assembly according to claim 51, wherein the forward section further comprises first and second forward side panels situated on opposite sides of the forward platform structure and positionable substantially transversely to the forward platform inner surface to face one another, and wherein the forward end gate extends between the first and second forward side panels.

53. A trailer assembly according to claim 52, wherein the forward end gate is pivotal relative to the forward platform structure for raising the forward end gate to extend substantially transverse to the forward platform inner surface and for lowering the forward end gate to lie in substantially parallel relationship with the forward platform inner surface when the trailer assembly is in both the extended and folded configurations.

54. A trailer assembly movable between an extended configuration and a folded configuration, the trailer assembly comprising:

- (a) a bed subassembly comprising
 - (i) an intermediate section comprising an intermediate platform surface and first and second intermediate side panels situated on opposite sides of the intermediate platform surface, the first and second intermediate side panels being positionable substantially transversely to the intermediate platform inner surface to face one another;
 - (ii) a forward section comprising a forward platform inner surface, first and second forward side panels situated on opposite sides of the forward platform inner surface and positionable substantially transversely to the forward platform inner surface to face one another, and a forward end gate extending between the first and second forward side panels and positionable in a closed position substantially transversely to the forward platform inner surface, the forward section being movably connected to the intermediate section to permit rotational movement of the forward section between the extended configuration, in which the forward platform inner surface is substantially parallel to the intermediate platform inner surface, and the folded configuration, in which the forward platform inner surface is above and substantially transverse to the intermediate platform inner surface and in which the forward end gate in the closed position faces and is spaced apart from the intermediate panel inner surface;
 - (iii) an aft section comprising an aft platform inner surface, first and second aft side panels situated on opposite sides of the aft platform

inner surface and positionable substantially transversely to the aft platform inner surface to face one another, and an aft end gate extending between the first and second aft side panels and positionable in a closed position substantially transversely to the aft platform inner surface, the aft section being movably connected to the intermediate section to permit rotational movement of the aft section between the extended configuration, in which the aft platform inner surface is substantially parallel to the intermediate platform inner surface, and the folded configuration, in which the aft platform inner surface is above and substantially transverse to the intermediate platform inner surface and in which the aft end gate in the closed position faces and is spaced apart from the intermediate panel inner surface;

- (b) a wheel subassembly carrying the intermediate section; and
- (c) a drawbar coupled to a member selected from the intermediate section and the wheel subassembly, the drawbar retainable in an operative position substantially parallel with the intermediate section for pulling the bed and wheel subassemblies across the ground in both the extended configuration and the folded configuration.

55. A trailer assembly according to claim 54, wherein the bed and wheel subassemblies and the drawbar are freely and independently rotatable relative to one another.

56. A trailer assembly comprising

a bed subassembly comprising a forward section, an aft section, and an intermediate section each having a respective inner surface and a respective outer surface, the forward and aft sections being situated on opposite ends of and being movably connected to the intermediate section between an extended configuration, in which the inner surfaces of the forward, aft, and intermediate sections are substantially parallel with one another, and a folded configuration, in which the inner surfaces of the forward and aft sections are substantially transverse to the inner surface of the intermediate section, at least one member selected from the group consisting of the forward, aft, and intermediate sections comprising a plurality of apertures extending from the inner surface to the outer surface thereof; and

a wheel subassembly supporting the bed subassembly for moving the bed subassembly along the ground.

57. A trailer assembly according to claim 56, wherein the forward and aft sections each comprise a respective plurality of apertures extending from the inner surface to the outer surface thereof.

58. A trailer assembly according to claim 57, further comprising a stabilizing bar extending through opposing apertures of the forward and aft sections.